I claim:

1. A micro-dispensing nozzle comprising:

a housing with at least one exit orifice;

a magnetostrictive valve in proximity to said orifice, said magnetostrictive valve having an open state and a closed state;

a means for applying a magnetic field to said magnetostrictive valve, said magnetostrictive valve changing shape in response to said magnetic field, said changing shape causing said orifice to change states.

2. The magnetostrictive dispensing nozzle of claim 1 wherein said magnetostrictive valve contains a magnetostrictive rod.

3. The magnetostrictive dispensing nozzle of claim 2 wherein said magnetostrictive rod lengthens under application of a magnetic field.

4. The magnetostrictive dispensing nozzle of claim 3 wherein

said magnetostrictive rod is held in a pre-extended state by a bias magnetic field.

5. The magnetostrictive dispensing nozzle of claim 4 wherein said pre-extended state of said magnetostrictive rod is relaxed upon application of a control magnetic field, whereby said rod contracts upon application of said control magnetic field causing said orifice to open.

6. The magnetostrictive dispensing nozzle of claim 1 wherein said magnetostrictive valve contains a magnetostrictive particle.

7. The magnetostrictive dispensing nozzle of claim 1 wherein said magnetostrictive valve contains a magnetostrictive layer.

8. The magnetostrictive dispensing nozzle of claim 1 wherein said housing contains an entrance orifice, said entrance orifice coupled to a precision pump.

9. The magnetostrictive dispensing nozzle of claim 1 wherein said means for means for applying a magnetic field is a magnetic

field coil exterior to said housing.

10. A magnetostrictive valve to control pico-liter flow from a fluid containing housing said valve comprising a magnetostrictive rod extending into an exit orifice of said housing, said valve being extended to close said exit orifice by a bias magnetic field, said rod responding to an applied control magnetic field to contract allowing said exit orifice to open.

11. The magnetostrictive valve of claim 10 wherein said rod is around 2 mm in diameter.

12. The magnetostrictive valve of claim 10 wherein said rod is around 30 mm in length.

13. The magnetostrictive valve of claim 10 wherein said bias magnetic field is supplied by a permanent magnetic.

14. The magnetostrictive valve of claim 10 wherein said magnetostrictive rod is operated faster than 1 kHz.

15. A magnetostrictive valve method comprising the steps of:

placing a piece of magnetostrictive material in proximity to an exit orifice of a fluid containing housing;

maintaining pressure on fluid in said fluid containing housing;

applying a magnetic field to said magnetostrictive material to cause said magnetostrictive material to change shape, whereby said exit orifice is blocked or un-blocked according to said magnetic field.

16. The magnetostrictive valve method of claim 15 wherein said magnetostrictive material is a magnetostrictive rod.

17. The magnetostrictive valve method of claim 16 further comprising the step of pre-extending said magnetostrictive rod with a bias magnetic field.

18. The magnetostrictive valve method of claim 17 wherein said bias magnetic field is supplied from a permanent magnet.

19. The magnetostrictive valve method of claim 15 wherein said

pressure is maintained by a precision pump.

20. The magnetostrictive valve method of claim 19 wherein controlling of said pump and controlling of applying said magnetic field is by a processor.